

Listing of Claims:

1-25 (canceled)

26. (currently amended) A capacitor structure, comprising:

a substrate;

an insulating material formed on the substrate, wherein the insulating material serves as a form for defining a capacitor trench;

a bottom electrode, wherein the bottom electrode comprises a bottom electrode layer in the capacitor trench and first and second [[a]] bottom electrode plugs [[plug]] disposed within the capacitor trench, wherein the bottom electrode layer extends up the sides of the capacitor trench to form bottom electrode sidewalls;

a capacitor dielectric at least partially positioned on the bottom electrode and in direct contact with the first and second bottom electrode plugs [[plug]] and formed around a majority of the bottom electrode plug;

and

a top electrode at least partially positioned on the capacitor dielectric and formed around a majority of the bottom electrode plug.

27. (original) The capacitor structure of claim 26, wherein the capacitor dielectric is made from a material having a higher dielectric constant than the dielectric constant of the insulating material.

28. (original) The capacitor structure of claim 26, wherein the capacitor dielectric has a high-k dielectric constant.

29. (original) The capacitor structure of claim 26, wherein the capacitor dielectric has a dielectric constant greater than or equal to about 6.0.

30. (original) The capacitor structure of claim 26, wherein the capacitor dielectric comprises a stack comprising more than one material.

31. (previously presented) The capacitor structure of claim 26, wherein the capacitor structure is a discrete capacitor.

32. (original) The capacitor structure of claim 26, wherein the capacitor structure is configured to be part of an integrated circuit.

33. (original) The capacitor structure of claim 26, further comprising a conductive material layer, wherein the conductive material layer is in contact with the bottom electrode.

34. (original) The capacitor structure of claim 33, wherein the conductive material layer is a different material than the bottom electrode.

35. (original) The capacitor structure of claim 26, wherein the bottom electrode and the capacitor dielectric are formed in the shape of a box.

36. (original) The capacitor structure of claim 26, wherein the top electrode is at least partially disposed in the capacitor trench such that the top electrode interdigitates with the bottom electrode.

37. (original) The capacitor structure of claim 26, wherein the bottom electrode layer further comprises a bottom electrode top wall.

38. (original) The capacitor structure of claim 37, wherein the bottom electrode layer further comprises a bottom electrode base.

39-54 (canceled)

55. (currently amended) A capacitor structure, comprising:

a substrate;

a metal layer formed above the substrate;

an insulating material at least partially formed on the metal layer, wherein the insulating material serves as an outside sidewall for defining a capacitor trench above the metal layer;

a bottom electrode, comprising a bottom electrode layer in the capacitor trench and [[a]] first and second bottom electrode [[plug]] plugs disposed within the capacitor trench, wherein the bottom electrode layer directly contacts the metal layer and extends up the sides of the capacitor trench to form bottom electrode sidewalls;

a capacitor dielectric at least partially positioned on the bottom electrode and in direct

contact with the bottom electrode layer and the first and second bottom electrode ~~[[plug]]~~ plugs;
and

a top electrode at least partially positioned on the capacitor dielectric.

56. (currently amended) The capacitor structure of claim 55, wherein the first and second bottom electrode ~~plug is~~ plugs are disposed between the bottom electrode layer and the capacitor dielectric such that the bottom electrode ~~plug is~~ plugs are in ~~indirect~~ direct contact with the metal layer.

57. (currently amended) The capacitor structure of claim 55, wherein the first and second bottom electrode ~~plug is~~ plugs are completely disposed within the capacitor trench and ~~extends~~ extend approximately the same length as the outside sidewall.

58. (currently amended) The capacitor structure of claim 55, wherein the first and second bottom electrode ~~plug includes~~ plugs include metal.

59. (currently amended) The capacitor structure of claim 55, wherein the capacitor dielectric and the top electrode extend around a majority of the first and second bottom electrode ~~[[plug]]~~ plugs.

60. (previously presented) The capacitor structure of claim 55, further comprising an insulating plug formed on the metal layer and defining inside sidewalls for the capacitor trench, wherein the

bottom electrode layer, the capacitor dielectric, and the top electrode at least partially extend around the insulating plug.

61. (canceled)

62. (previously presented) The capacitor structure of claim 55, wherein the capacitor dielectric has a dielectric constant greater than or equal to about 6.0.

63. (previously presented) The capacitor structure of claim 55, wherein the capacitor dielectric comprises a stack comprising more than one material.

64. (canceled)

65. (new) The capacitor structure of claim 55, wherein the capacitor dielectric is made from a material having a higher dielectric constant than the dielectric constant of the insulating material.

66. (new) The capacitor structure of claim 55, wherein the capacitor dielectric has a high-k dielectric constant.

67. (new) The capacitor structure of claim 55, wherein the capacitor structure is a discrete capacitor.

68. (new) The capacitor structure of claim 55, wherein the capacitor structure is configured to

be part of an integrated circuit.

69. (new) The capacitor structure of claim 55, wherein the metal layer is comprised of a different material than the bottom electrode.

70. (new) The capacitor structure of claim 55, wherein the top electrode is at least partially disposed in the capacitor trenches such that the top electrode interdigitates with the bottom electrode.

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